VII. "Contributions to our Knowledge of the Connexion between Chemical Constitution and Physiological Action. Preliminary Communication on the Action of certain Aromatic Bodies." By T. Lauder Brunton, M.D., F.R.S., and J. Theodore Cash, M.D. Received March 24, 1887.

The distinctive action of the lower members of the fatty series is their stimulant and anæsthetic action on the nerve-centres.

The members of the aromatic series also affect the nervous system, but they appear to affect the motor centres more than the sensory, so that instead of producing anæsthesia, like the members of the fatty series, they tend rather to produce tremor, convulsions, and paralysis. Benzene, chlorobenzene, bromobenzene, and iodobenzene are all somewhat similar in their action on frogs; the halogen radicals not modifying the action of the benzene to such an extent as they do in the case of ammonium salts. The voluntary muscles are weakened by them, and there is a slight tendency to paralysis of the motor nerves; but the action is chiefly exerted upon the brain and spinal cord. The brain is first affected, as shown by general lethargy and disinclination to move. Next the cord is affected; motions are imperfectly performed, and there is a tendency to general tremor on movement resembling that observed in disseminated sclerosis; sometimes, however, the tremor is observed independently of movement.

The addition of hydroxyl to the benzene nucleus intensifies the convulsant action, so that oxybenzene (carbolic acid) and dioxybenzene cause convulsions in frogs, and trioxybenzene causes jerkings, though of a slighter character.

The Society then adjourned over the Easter Recess to Thursday, April 21st.

Presents, March 31, 1887.

Transactions.

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Frankfurt-am-Oder:—Naturwissenschaftlicher Verein. Monatliche Mittheilungen aus dem Gesammtgebiete der Naturwissenschaften. Band IV. Nr. 1–12. 8vo. *Berlin* 1887; Societatum Litteræ. 1887. Nos. 1–2. 8vo. *Berlin.* The Union.